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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,241	06/01/2001	Patrick James O'Grady	HULSE CASE 443-PCT	9729

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105 West Adams Street  
Chicago, IL 60603

EXAMINER
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KOPEC, MARK T

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 12/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/857,241

Applicant(s)

O'GRADY, PATRICK JAMES

Examiner

Mark Kopec

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 25 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 8-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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This application is a 371 of PCT/GB99/04087 (filed 12/3/99). The preliminary amendment filed 2/25/03 is entered. Claims 1-32 are currently pending.

The references cited in the Search Report filed 6/1/01 have been considered, but will not be listed on any patent resulting from this application because they were not provided on a separate list in compliance with 37 CFR 1.98(a)(1). In order to have the references printed on such resulting patent, a separate listing, preferably on a PTO-1449 or PTO/SB/08A and 08B form, must be filed within the set period for reply to this Office action.

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, drawn to a semi-conductive material.

Group II, claim(s) 8-17 and 31, drawn to a method of forming a compound.

Group III, claim(s) 18-20, drawn to a web or sheet.

Group IV, claim(s) 21-24, drawn to a flexible fabric.

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Group V, claim(s) 25-28, drawn to an electrical connection.

Group VI, claim(s) 29-30, drawn to a method of operating a heater.

Group VII, claim(s) 32, drawn to a method of providing a heater.

The inventions listed as Groups I-VII do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Claims 1-7 are rejected as anticipated or obvious over Christopherson et al (4,265,789) or Michalchik (4,874,549). As the recited material does not make a contribution over the prior art, unity of invention is lacking and restriction is appropriate.

During a telephone conversation with Mr. James Foley on 2/2/0/03 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-7. Affirmation of this election must be made by applicant in replying to this Office action. Claims 8-32 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it,

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in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for anti-adsorption compounds selected from the group consisting of polypropylene glycol and polyethylene glycol, does not reasonably provide enablement for "anti-adsorption compound" as broadly claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims. No other examples of "anti-adsorption" materials are disclosed, and the specification is devoid of any teaching or guidance as to the selection of such materials (other than those specifically disclosed).

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

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the invention. Applicant should amend the Markush language to -- selected from the group **consisting of**--. See MPEP 2173.05(h).

Claim 4 is objected under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for

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establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over either Christopherson et al (4,265,789) or Michalchik (4,874,549).

Christopherson et al (4,265,789) discloses flexible conductive composition of carbon black or other fine conductive particles dispersed in a high molecular weight polymer matrix composed of two phases--a soft elastomeric, low glass transition temperature phase and a hard, crystalline and high glass transition temperature phase (Abstract). The reference specifically discloses polyurethane elastomers and polyethylene glycol additives (Col 2, lines 39-60), and teaches percentages of polymer to carbon black within the amounts instantly claimed (Examples 1-6). The reference either specifically or inherently meets each of the claimed limitations.

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Michalchik (4,874,549) discloses a pressure sensitive electro-conductive material which can be utilized as a pressure sensitive electro-conductive switch or as a variable resistor. The switch comprises two electrodes with a deformable pressure sensitive electro-conductive material sandwiched between the electrodes. The electro-conductive material comprises a deformable elastomeric material (film) impregnated with a plurality of electro-conductive micro-agglomerates of unbound finely divided electro-conductive carbon particles enclosed by a matrix of the elastomeric material and finely divided electro-conductive carbon particles bound together by the elastomeric material (Abstract). The elastomeric composition is an elastic, rubbery, deformable material prepared from natural rubbers, synthetic rubbers or synthetic plastic materials. These materials include natural rubber, isoprene rubber, styrene butadiene rubber, butadiene rubber, chloroprene rubber, nitrile rubber, butyl rubber, ethylenepropylene rubber, chlorinated polyethylene, styrene, butadiene block copolymer, plasticized polyvinyl chloride, polyurethane and the like. Preferably the elastomeric material is polyurethane (Col 5, lines 38-47; Col 7, line 65; Col 14, lines 9-11). With respect to the instantly claimed "anti-adsorption compounds", the reference teaches the addition of polyethylene glycol (Col 6, lines 16-20) as well as



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other common elastomeric film additives (Col 8, lines 39-46; examples). Lastly, the reference teaches percentages of polymer to carbon black within the amounts instantly claimed (Col 8, lines 47-58). The reference either specifically or inherently meets each of the claimed limitations.

The references are anticipatory.

In the alternative that any minor modifications are necessary to meet the claimed limitations, such as minor variation in percentages of ingredients, such modifications are well within the purview of the skilled artisan.

In view of the foregoing, the above claims have failed to patentably distinguish over the applied art.

Applicant is reminded that any evidence to be presented in accordance with 37 C.F.R. 1.131 or 1.132 should be submitted before final rejection in order to be considered timely.

The remaining references listed on form 892 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Kopec whose telephone number is 703 308-1088. The examiner can

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normally be reached on Monday - Thursday from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Yogendra Gupta can be reached on 703 308-4708. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9310.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-0661.



Mark Kopec  
Primary Examiner  
Art Unit 1751

MK  
December 1, 2003